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PREPRINT

NASA TM X- **65334**

PRELIMINARY HOURLY VALUES OF EQUATORIAL Dst FOR 1969

M. SUGIURA
D. J. POROS

SEPTEMBER 1970



GODDARD SPACE FLIGHT CENTER
GREENBELT, MARYLAND

N70-40165

FACILITY FORM 602

(ACCESSION NUMBER)

16
(PAGES)

TMX 65334
(NASA CR OR TMX OR AD NUMBER)

(THRU)

(CODE)

13
(CATEGORY)

PRELIMINARY HOURLY VALUES OF
EQUATORIAL Dst FOR 1969

M. Sugiura and D. J. Poros

September 1970

Preliminary hourly values of equatorial Dst for 1969 are presented. These values are based on the data from Honolulu and San Juan only, and should be regarded as preliminary. Dst values based on data from three observatories will be published later to replace the tabulations given in this report.

1969 DST

JAN

FEB

MAR

APR

MAY

JUN

JUL

AUG

SEP

OCT

NOV

DEC

100 γ

5

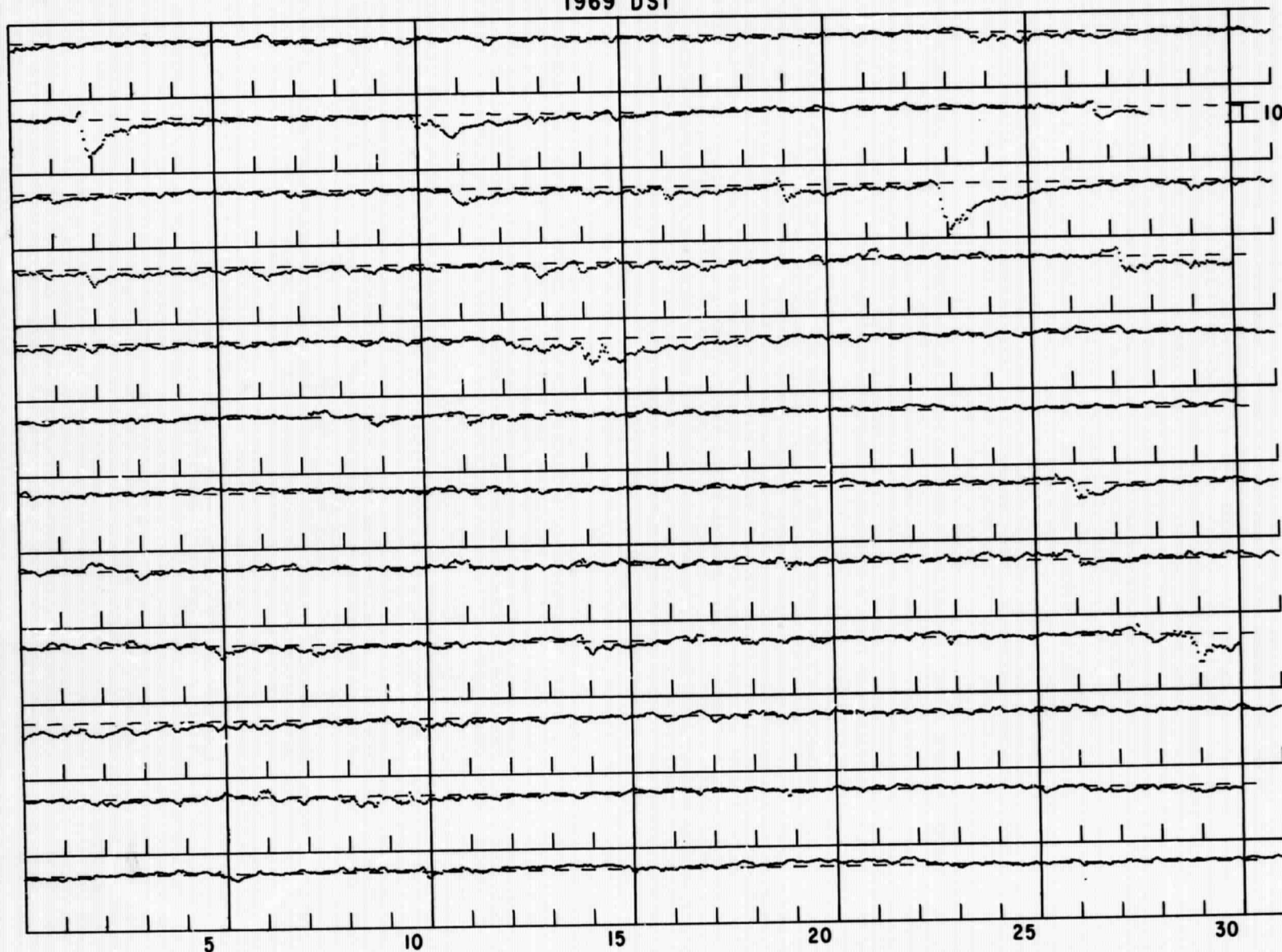
10

15

20

25

30



JANUARY 1969

DAY	UNIT=GAMMAS																						G.M.T.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-34	-33	-32	-24	-17	-19	-23	-25	-21	-20	-13	-18	-21	-19	-14	-16	-22	-16	-11	-10	-7	-7	-8	-10
2	-11	-10	-6	-11	-6	-4	-3	-4	-4	-2	-5	-8	-17	-17	-14	-13	-16	-15	-12	-11	-5	1	1	-1
3	-3	-2	3	5	5	6	6	6	6	7	6	3	-2	-8	-9	-13	-13	-13	-11	-7	-2	5	7	1
4	-5	-4	0	3	4	5	5	6	7	4	-2	-9	-11	-7	-2	-2	-1	-1	-0	0	3	7	4	-2
5	-8	-7	-3	0	3	4	2	2	3	4	2	-3	-7	-13	-18	-19	-18	-15	-13	-12	-5	3	4	1
6	-1	1	4	5	5	4	1	-0	-0	-0	-3	-8	-14	-17	-17	-16	-16	-14	-11	-10	-6	-4	-3	-2
7	-3	0	6	18	23	27	29	25	20	10	-1	-10	-10	-20	-20	-16	-14	-15	-19	-19	-12	-6	-4	-6
8	-13	-14	-9	-6	-16	-12	-12	-14	-12	-11	-13	-17	-23	-27	-30	-29	-27	-22	-19	-24	-20	-13	-14	-15
9	-14	-12	-7	-2	-1	-4	-7	-9	-8	-8	-12	-15	-18	-18	-18	-18	-16	-13	-15	-15	-13	-6	-4	-7
10	-7	-5	0	4	5	5	4	1	-1	-0	-2	-10	-17	-17	-15	-18	-23	-26	-24	-22	-18	-9	-3	-4
11	-4	7	5	6	7	7	2	-4	-3	-1	-3	-7	-7	-12	-15	-14	-12	-9	-11	-13	-8	-2	3	5
12	5	0	2	5	8	5	5	-0	-2	-8	-8	-12	-16	-15	-13	-21	-35	-35	-38	-38	-31	-19	-13	-10
13	-6	-1	-1	-0	0	1	0	-2	-2	-3	-7	-11	-11	-12	-13	-15	-18	-9	-17	-13	-7	-2	1	3
14	-8	-14	-12	-7	-4	-3	-3	-5	-5	-7	-10	-12	-13	-12	-10	-16	-24	-22	-21	-18	-10	-8	-9	-10
15	-18	-25	-25	-22	-20	-9	-11	-13	-12	-12	-9	-11	-12	-12	-7	-3	-7	-11	-28	-33	-23	-11	-2	-3
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21	8	4	-7	-3	-2	-4	-3	-3	-5	-7	-9	-9	-6	-4	-4	-3	-4	-4	-13	-16	-17	-12	-5	-1
22	2	-1	0	5	8	8	5	3	1	1	-3	-5	-9	-9	-11	-13	-15	-16	-11	-7	-5	-2	3	9
23	8	4	3	6	7	5	2	1	3	3	-1	-1	1	-1	-2	1	6	9	11	8	4	5	11	15
24	18	15	15	17	20	19	17	15	14	13	10	7	1	-3	-9	-22	-27	-24	-29	-32	-54	-58	-46	-39
25	-44	-47	-37	-28	-21	-18	-26	-45	-43	-36	-36	-34	-25	-24	-27	-31	-32	-43	-43	-53	-61	-49	-37	-29
26	-37	-47	-34	-24	-21	-19	-19	-17	-15	-14	-16	-22	-17	-23	-27	-33	-30	-27	-23	-24	-27	-31	-32	-21
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31	6	1	-2	2	7	7	3	1	-4	-9	-15	-9	-12	-15	-17	-16	-17	-19	-15	-16	-25	-24	-15	-6

FEBRUARY 1969

DAY	UNIT=GAMMAS																						G.M.T.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-3	-4	-5	-5	-2	-0	-3	-5	-5	-10	-11	-10	-10	-11	-15	-17	-12	-9	-6	-11	-17	-12	-3	2
2	5	3	2	2	5	6	3	3	0	-4	-7	-9	-11	-13	-12	12	25	35	-66	-110	-157	-168	-200	-200
3	-184	-181	-174	-166	-156	-150	-135	-112	-89	-92	-91	-86	-93	-73	-70	-73	-70	-59	-70	-65	-71	-88	-63	-53
4	-47	-43	-51	-49	-43	-43	-45	-45	-43	-46	-49	-44	-43	-44	-38	-34	-31	-30	-27	-25	-27	-31	-35	-33
5	-33	-41	-35	-34	-36	-38	-39	-38	-39	-42	-39	-36	-35	-36	-39	-43	-41	-34	-25	-18	-17	-18	-20	-17
6	-15	-15	-21	-26	-24	-26	-29	-14	-19	-24	-22	-23	-20	-16	-16	-18	-20	-20	-18	-18	-22	-20	-23	-24
7	-12	-8	-10	-13	-14	-13	-15	-16	-16	-18	-21	-21	-19	-17	-16	-14	-18	-19	-17	-20	-24	-29	-22	-19
8	-23	-19	-15	-16	-18	-23	-24	-22	-19	-20	-18	-15	-11	-11	-14	-14	-17	-24	-19	-14	-15	-22	-25	-19
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11	-57	-68	-67	-47	-51	-53	-49	-30	-30	-38	-53	-62	-59	-60	-80	-83	-50	-104	-111	-118	-119	-122	-113	-102
12	-97	-84	-74	-71	-68	-64	-64	-63	-61	-60	-60	-59	-57	-54	-53	-50	-41	-36	-33	-37	-43	-47	-47	-58
13	-55	-56	-55	-50	-47	-46	-43	-46	-47	-43	-40	-39	-36	-33	-29	-22	-19	-14	-17	-25	-36	-50	-40	-29
14	-21	-21	-25	-35	-30	-24	-23	-25	-25	-25	-24	-21	-19	-19	-19	-18	-15	-10	-6	-7	-11	-17	-28	-29
15	-23	-19	-22	-20	-19	-23	-27	-28	-23	-18	-13	-8	-4	2	5	9	8	4	-4	-21	-30	-38	-37	-30
16	-28	-21	-18	-20	-23	-26	-21	-26	-16	-19	-20	-17	-16	-18	-16	-13	-11	-6	-1	-1	-1	-3	-4	-3
17	-3	-4	-9	-12	-13	-11	-13	-13	-13	-16	-17	-15	-12	-9	-10	-11	-10	-3	2	2	-2	-2	-1	-1
18	-1	-0	-2	-3	-5	-4	-3	-4	-5	-6	-7	-7	-5	-1	1	3	4	10	15	9	-1	-3	-2	2
19	7	15	14	8	6	7	8	8	9	7	8	8	13	17	15	10	8	12	19	18	11	0	6	10
20	8	6	3	-5	-12	-12	-6	-3	-2	-4	-5	-7	-10	-5	0	3	4	7	16	16	15	11	9	8
21	2	3	0	-1	-3	-5	-8	-11	-7	-7	-8	-6	-3	-2	1	2	5	5	8	10	10	7	6	6
22	5	10	8	3	3	4	5	5	5	6	5	5	6	5	1	-3	-5	-0	4	10	11	15	17	23
23	22	15	12	9	6	3	2	-0	-1	-3	-2	4	2	5	-1	4	5	10	13	10	9	10	12	15
24	11	6	6	6	3	1	3	4	-1	3	2	4	5	3	1	-3	-5	-9	-5	-3	3	6	8	9
25	7	0	-1	2	3	2	0	-1	3	3	-1	-1	1	0	-1	-2	-3	-2	-2	-2	-5	-1	-0	1
26	-2	-2	7	3	-8	-4	5	13	7	3	2	4	-0	0	-4	-7	-6	-6	-15	-16	-12	-4	1	1
27	-1	-1	-0	15	5	8	6	-5	-1	1	1	5	18	24	20	26	-22	-43	-48	-58	-63	-67	-60	-54
28	-53	-51	-47	-44	-34	-31	-30	-26	-25	-28	-30	-26	-29	-32	-28	-24	-27	-36	-32	-35	-40	-40	-45	-45

MARCH 1969

DAY	UNIT=GAMMAS																G.M.T.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-42	-31	-29	-29	-29	-25	-23	-23	-21	-18	-19	-18	-16	-10	-7	-5	-10	-14	-12	-13	-16	-12	-11	-22
2	-39	-41	-36	-35	-35	-29	-26	-25	-23	-23	-23	-18	-13	-15	-15	-17	-20	-21	-19	-20	-21	-17	-14	-16
3	-19	-18	-13	-10	-9	-8	-9	-8	-9	-9	-9	-9	-9	-11	-14	-20	-21	-20	-22	-20	-21	-12	-3	1
4	0	-0	1	2	3	2	0	-4	-4	-4	-2	-2	-1	-10	-19	-22	-15	-7	2	2	-2	-8	-12	-1
5	-6	-4	-2	-2	2	4	6	6	11	11	7	1	-6	-9	-9	-7	-4	-3	-3	-8	-6	-3	3	5
6	-8	-7	-6	-10	-10	-8	-9	-5	-5	-7	-8	-4	-8	-9	-9	-10	-10	-16	-13	-9	-14	-15	-8	-6
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8	-24	-29	-33	-29	-26	-28	-25	-24	-22	-17	-17	-18	-14	-16	-18	-20	-21	-23	-27	-24	-23	-23	-23	-29
9	-24	-22	-25	-25	-21	-20	-14	-11	-11	-13	-15	-8	-10	-18	-23	-27	-27	-19	-23	-22	-17	-5	1	3
10	-1	-5	-5	-9	-11	-9	-13	-13	-13	-9	-9	-7	-8	-10	-13	-11	-9	-3	0	-5	-8	-5	-3	-4
11	-8	-8	-12	-8	-4	-7	-7	-12	-16	-20	-19	-18	-18	-16	-16	-17	-18	-13	-14	-31	-46	-55	-61	-71
12	-75	-78	-90	-78	-83	-83	-57	-66	-69	-63	-49	-33	-50	-47	-50	-53	-54	-55	-50	-50	-43	-37	-30	-33
13	-42	-35	-40	-37	-32	-31	-31	-28	-26	-24	-26	-30	-30	-32	-34	-31	-32	-35	-34	-33	-31	-33	-34	-33
14	-35	-33	-32	-30	-25	-20	-19	-15	-16	-13	-13	-16	-15	-14	-17	-17	-16	-16	-23	-19	-14	-19	-8	-11
15	-21	-37	-36	-41	-40	-36	-40	-46	-37	-37	-34	-26	-32	-31	-33	-36	-39	-35	-33	-41	-40	-39	-38	-32
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17	-15	-43	-65	-47	-55	-69	-60	-42	-35	-33	-29	-28	-28	-33	-36	-33	-34	-35	-42	-44	-45	-52	-41	-32
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19	-14	-13	-15	-14	-15	-15	-16	-16	-15	-17	-13	-10	-10	-8	-3	-2	-4	-0	5	6	36	18	-8	-22
20	-56	-76	-87	-65	-51	-59	-61	-47	-43	-41	-30	-32	-33	-33	-33	-33	-40	-41	-38	-35	-33	-37	-49	-55
21	-57	-54	-48	-45	-44	-48	-44	-31	-31	-32	-28	-26	-27	-25	-24	-26	-27	-26	-25	-25	-28	-22	-18	-15
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23	-28	-29	-28	-24	-22	-19	-16	-11	-12	-12	-8	-6	-3	3	11	8	6	0	-6	-29	-83	-136	-177	-184
24	-241	-274	-244	-231	-218	-200	-196	-213	-193	-172	-200	-191	-145	-147	-150	-138	-130	-121	-118	-113	-108	-103	-97	-96
25	-97	-97	-90	-91	-90	-80	-75	-82	-86	-86	-81	-78	-78	-79	-78	-80	-81	-82	-78	-81	-81	-78	-73	-69
26	-65	-63	-58	-57	-58	-55	-51	-47	-42	-42	-41	-42	-43	-43	-42	-43	-44	-42	-34	-31	-32	-29	-30	-31
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31	-15	-23	-29	-21	-14	-11	-12	-9	-4	-1	-2	-2	-5	-2	-3	-1	8	10	-6	-4	-10	-18	-15	-9

APRIL 1969

DAY	UNIT=GAMMAS								9	10	11	12	13	14	15	16	17	18	19	20	21	22	G.M.T.	
	1	2	3	4	5	6	7	8															23	24
1	-6	-5	-4	-13	-20	-21	-17	-14	-16	-15	-7	-12	-18	-14	-2	-7	-11	-12	-23	-33	-39	-42	-42	-28
2	-24	-26	-28	-26	-25	-27	-26	-23	-21	-21	-23	-27	-26	-21	-18	-13	-12	-19	-12	-11	-33	-48	-61	-74
3	-87	-72	-62	-55	-57	-56	-52	-40	-34	-34	-36	-36	-31	-26	-22	-21	-26	-23	-21	-23	-23	-29	-33	-28
4	-32	-37	-39	-28	-36	-39	-32	-27	-21	-25	-30	-30	-28	-22	-23	-20	-21	-16	-9	-11	-10	-19	-26	-20
5	-23	-21	-21	-23	-26	-24	-24	-23	-28	-34	-35	-30	-27	-24	-18	-16	-14	-14	-9	-3	-5	-12	-14	-14
6	-15	-18	-22	-28	-31	-29	-21	-19	-11	-11	-11	-8	-10	-4	0	2	0	5	5	-4	-6	-9	-27	-29
7	-32	-39	-36	-41	-50	-58	-62	-44	-35	-36	-36	-33	-31	-31	-29	-27	-22	-21	-29	-27	-21	-13	-14	-15
8	-17	-21	-24	-27	-30	-28	-23	-20	-16	-17	-17	-17	-17	-11	-8	-7	-7	-2	4	1	-4	-10	-14	-9
9	-2	-2	-4	-13	-18	-30	-36	-26	-19	-23	-26	-20	-20	-17	-16	-21	-27	-29	-27	-32	-37	-37	-26	-19
10	-15	-11	-9	-12	-14	-16	-22	-22	-20	-24	-29	-32	-27	-20	-17	-13	-11	-12	-8	-22	-7	-13	-18	-18
11	-16	-16	-12	-15	-13	-18	-20	-27	-28	-31	-34	-28	-12	1	1	-7	-10	-12	-11	-12	-10	-10	-13	-15
12	-11	-7	-6	-7	-9	-11	-11	-6	-4	-6	-8	-10	-3	1	7	7	4	6	5	8	11	15	4	5
13	-25	-20	-20	-15	-18	-23	-21	-13	-11	-11	-15	-14	-14	-15	-16	-21	-22	-22	-28	-39	-59	-68	-73	-71
14	-63	-54	-56	-43	-40	-38	-36	-29	-26	-27	-28	-30	-22	-14	-5	-2	1	4	7	4	-10	-30	-49	-49
15	-50	-44	-31	-30	-29	-29	-28	-27	-15	-15	-26	-26	-22	-21	-15	-13	-9	-4	-4	16	6	-4	-6	-7
16	-5	-2	-5	-14	-24	-32	-28	-23	-24	-23	-27	-28	-19	-15	-11	-9	-6	-2	-1	-3	-12	-29	-34	-32
17	-34	-35	-42	-31	-27	-32	-39	-33	-44	-42	-34	-33	-35	-32	-23	-16	-17	-16	-21	-28	-33	-47	-49	-42
18	-43	-52	-46	-32	-37	-35	-27	-27	-27	-28	-29	-31	-29	-21	-19	-16	-14	-10	-7	-5	-10	-14	-27	-28
19	-20	-13	-7	-11	-13	-13	-12	-10	-9	-10	-13	-13	-12	-7	-4	-1	1	5	7	7	-3	-12	-18	-18
20	-17	-13	-10	-10	-11	-10	-11	-10	-8	-10	-12	-8	-5	-1	2	6	10	15	15	17	7	-13	-25	-23
21	-16	-9	-6	-8	-9	-8	-6	-8	-10	-11	-9	-8	-3	4	6	4	8	16	21	19	11	3	7	14
22	24	38	42	42	42	49	35	8	12	7	3	1	7	6	7	9	11	14	15	10	3	-6	-12	-8
23	-3	2	3	2	1	2	4	7	8	6	3	-0	0	5	8	11	14	19	18	14	6	1	-0	3
24	7	6	1	2	-1	-2	5	9	10	8	6	5	7	14	13	13	12	15	21	23	18	9	3	3
25	-3	-11	3	4	0	-1	1	7	5	4	1	-1	-0	4	4	1	4	8	8	7	4	-1	-1	-2
26	1	5	9	8	5	5	6	8	7	5	1	-2	-3	-1	2	2	0	5	8	0	-1	-8	-11	-2
27	3	0	-6	0	1	-3	-5	-3	-4	-4	-8	-4	-3	2	2	0	1	4	13	27	23	24	23	25
28	26	31	34	43	36	13	-28	-34	-62	-80	-68	-59	-73	-77	-87	-86	-64	-51	-52	-56	-60	-67	-62	-55
29	-45	-38	-35	-35	-33	-35	-34	-26	-26	-35	-35	-36	-34	-25	-22	-26	-28	-27	-26	-36	-41	-44	-50	-65
30	-54	-41	-31	-42	-55	-41	-41	-42	-44	-31	-37	-40	-39	-38	-39	-50	-48	-44	-46	-52	-48	-51	-52	-42

MAY 1969

DAY	UNIT=GAMMAS																G.M.T.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-31	-22	-16	-21	-19	-24	-23	-18	-19	-23	-27	-26	-21	-17	-18	-20	-16	-17	-19	-22	-26	-31	-31	-21
2	-12	-4	-6	-5	-7	-14	-13	-12	-15	-10	-18	-21	-17	-2	0	-4	-2	-8	8	-23	-26	-34	-36	-30
3	-22	-12	-5	-3	-8	-2	-11	-11	-9	-16	-17	-23	-26	-23	-23	-28	-25	-20	-15	-22	-22	-27	-22	-19
4	-8	1	5	0	-0	-2	-4	-6	-7	-10	-13	-16	-18	-19	-22	-22	-22	-24	-17	-17	-18	-13	-14	-12
5	-9	-3	1	1	-2	0	1	-2	-5	-9	-8	-7	-11	-10	-12	-12	-11	-6	-2	-1	-15	-14	-17	-16
6	-8	2	7	3	-1	6	6	-6	-7	-8	-12	-21	-22	-21	-21	-24	-22	-17	-13	-11	-14	-15	-19	-13
7	-6	-0	0	-7	-8	-8	-8	-12	-10	-6	-9	-9	-9	-7	-6	-5	-8	-6	-2	2	-2	-4	-2	8
8	16	22	20	15	10	12	6	-0	2	3	4	4	4	7	5	-2	-1	2	3	4	1	-1	1	4
9	17	22	20	13	6	1	-0	2	1	-4	-4	-7	-14	-17	-19	-23	-22	-17	-15	-11	-6	-2	-10	-2
10	7	15	16	8	7	4	0	11	4	3	2	0	-1	-3	-9	-18	-21	-15	-12	-10	-9	-9	-12	-7
11	7	10	10	10	11	13	11	4	-0	6	5	-1	-7	-12	-15	-17	-18	-13	-8	-5	-3	-4	-6	-4
12	4	13	18	18	17	17	14	10	10	10	7	-1	-5	-6	-7	-6	-1	1	12	18	17	20	17	6
13	4	-8	-23	-18	-16	-13	-29	-43	-42	-38	-34	-46	-45	-48	-50	-48	-56	-51	-36	-35	-46	-57	-61	-61
14	-62	-59	-56	-55	-40	-29	-41	-44	-40	-32	-32	-43	-47	-53	-54	-56	-48	-40	-37	-20	-25	-24	-48	-90
15	-106	-91	-79	-117	-136	-122	-121	-120	-95	-68	-35	-67	-47	-77	-109	-111	-108	-109	-112	-123	-127	-118	-120	-113
16	-83	-86	-82	-79	-87	-91	-83	-70	-68	-60	-51	-71	-71	-75	-75	-79	-79	-77	-74	-68	-62	-56	-54	-49
17	-46	-44	-45	-47	-53	-58	-54	-48	-44	-42	-46	-53	-57	-61	-64	-62	-57	-50	-44	-39	-36	-29	-37	-38
18	-32	-32	-30	-31	-35	-30	-22	-36	-38	-31	-29	-37	-27	-33	-32	-28	-26	-3	-21	-37	-35	-28	-26	-29
19	-27	-19	-14	-11	-9	-6	-4	-7	-9	-7	-6	-17	-24	-31	-33	-37	-37	-40	-41	-35	-28	-24	-20	-16
20	-14	-10	-3	-4	-2	0	2	-2	-7	-8	-6	-10	-13	-12	-11	-14	-13	-11	-8	-7	-6	-16	-22	-24
21	-21	-14	-11	-14	-18	-14	-16	-18	-19	-13	-11	-17	-29	-35	-36	-41	-41	-35	-31	-31	-33	-40	-35	-26
22	-16	-7	-4	-2	-1	-3	-5	-9	-5	-3	-2	-11	-23	-23	-26	-24	-25	-24	-20	-15	-10	-9	-7	-5
23	-2	-0	-0	-2	-2	2	0	-2	-3	-5	-5	-8	-11	-11	-9	-10	-14	-16	-19	-13	-15	-14	-14	-9
24	0	3	6	5	3	-4	-11	-9	-7	-2	-1	-9	-13	-17	-18	-15	-12	-11	-13	-18	-27	-22	-16	-19
25	-19	-13	-7	-5	-1	0	-0	-2	-1	2	2	-3	-8	-13	-16	-18	-20	-24	-26	-20	-12	-12	-14	-13
26	-9	-3	0	-1	0	9	12	9	9	11	10	10	9	10	8	3	-5	-8	-12	-11	-6	-2	7	8
27	14	21	26	24	20	18	16	14	13	12	11	5	4	9	11	12	11	6	1	0	8	10	16	12
28	17	24	27	26	21	15	5	-5	-9	-11	-9	-3	1	1	-4	-8	-13	-13	-13	-14	-11	-11	-8	-6
29	-2	3	9	8	7	9	8	4	6	5	3	3	3	8	14	13	6	2	-2	-3	0	-3	-0	1
30	-2	5	10	11	8	2	0	2	-3	1	4	4	2	2	6	3	-5	-6	-4	2	4	3	0	-1
31	2	3	6	5	2	6	-4	-5	-9	-8	-4	-4	-6	-14	-19	-18	-15	-18	-18	-11	-12	-16	-16	-15

JUNE 1969

DAY	UNIT=GAMMAS																						G.M.T.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-8	-2	2	-2	-6	-8	-8	-6	-4	-2	-1	-6	-9	-10	-14	-16	-15	-16	-18	-15	-13	-8	-4	-0
2	4	7	13	10	5	-4	-8	1	2	2	6	-1	-8	-9	-5	-3	-3	-3	-4	1	3	9	10	7
3	3	1	-1	-4	-3	-3	-1	1	1	5	5	1	-2	-4	-5	-6	-2	-1	1	7	13	8	-1	-13
4	-12	-3	3	-0	-5	-3	-1	4	4	2	4	-1	-9	-9	-6	-4	-6	-9	-10	-8	-8	-10	-4	-1
5	1	5	8	6	9	9	9	10	13	12	15	16	15	13	12	8	6	4	6	5	8	6	6	6
6	3	4	7	10	14	15	16	17	16	17	18	14	15	15	16	16	12	6	8	14	15	12	10	9
7	9	7	5	7	12	8	7	11	17	12	7	-1	7	12	9	5	1	-0	-1	-2	0	-0	3	3
8	-1	0	0	1	1	20	17	23	29	25	24	24	29	32	36	33	27	17	9	8	2	2	-1	-0
9	2	3	5	10	5	6	8	10	12	14	12	6	3	0	-0	-1	-4	-16	-31	-34	-37	-45	-38	-32
10	-28	-21	-23	-23	-17	-14	-15	-15	-10	-7	-6	-7	-3	-3	-2	-1	-3	-12	-12	-9	-6	-3	-5	-4
11	-1	-1	2	3	-0	0	4	4	4	6	7	6	6	5	6	10	17	18	16	14	18	15	16	10
12	13	7	-8	-34	-49	-34	-32	-33	-27	-26	-25	-16	-13	-13	-12	-11	-5	0	-0	-14	-17	-18	-16	-12
13	-11	-6	-8	-26	-27	-23	-28	-22	-18	-15	-12	-14	-14	-10	-8	-13	-9	-9	-14	-18	-17	-21	-25	-17
14	-14	-1	0	2	22	18	5	-5	-5	-4	-0	-1	-9	7	4	-5	10	-1	-8	-8	-9	-14	-16	-16
15	-14	-10	-10	-5	-6	-6	-3	-1	-0	3	6	-0	-5	-11	-7	-0	5	-3	-12	-12	-9	-5	-4	-6
16	-7	-10	-17	-15	-14	-13	3	9	8	9	12	19	18	12	6	10	13	16	13	8	-0	-3	-3	-5
17	-11	-14	-12	-5	-9	-3	-4	0	-2	2	8	7	4	8	12	12	12	11	1	-3	-7	-9	-7	-3
18	-5	-6	-3	-1	-2	-2	1	2	1	2	5	5	5	2	4	6	7	6	-1	-1	1	2	2	4
19	6	8	4	6	6	7	8	9	13	12	8	9	13	15	14	16	16	15	16	17	21	22	20	15
20	12	5	3	4	6	2	-4	-1	5	4	0	-1	1	8	10	6	3	2	-3	-3	-1	4	8	5
21	2	5	10	11	10	10	8	6	4	4	4	4	9	16	18	15	11	6	5	6	7	8	9	7
22	2	-1	1	5	5	6	9	10	10	8	9	7	9	14	16	13	14	15	15	15	21	26	27	29
23	27	23	23	28	27	25	20	17	17	17	16	17	19	23	26	22	15	17	15	15	14	6	5	-0
24	-4	-4	1	0	-5	-1	3	2	-2	-4	-2	-1	3	5	7	7	10	10	9	3	2	2	-4	-9
25	-6	-5	-4	-2	3	7	3	5	8	7	9	8	10	16	15	11	10	3	-1	-1	-4	0	4	2
26	1	-6	-3	2	4	6	5	8	9	6	5	6	5	7	9	5	2	8	9	5	6	9	14	17
27	16	14	12	6	4	6	6	8	6	6	6	8	13	16	17	14	11	11	9	6	9	8	8	8
28	5	1	1	4	10	11	12	12	14	13	12	10	8	9	8	7	7	14	21	20	22	24	25	25
29	21	17	17	17	15	17	18	18	19	16	14	17	21	25	29	30	31	35	33	27	19	11	14	15
30	5	9	10	14	14	17	17	16	14	12	14	16	20	25	30	31	32	34	32	32	29	25	22	32

JULY 1969

DAY	UNIT=GAUSS																								G.M.T.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	27	21	19	25	30	30	20	8	-11	-9	-3	3	6	9	7	4	4	7	3	-1	6	5	6	2		
2	3	-2	-7	-2	2	2	3	8	5	2	0	-1	-1	1	1	-4	5	15	18	22	18	14	16	12		
3	12	4	8	10	14	15	15	16	15	13	14	14	18	20	20	21	23	22	18	11	5	3	8	14		
4	17	14	13	15	21	24	22	21	21	19	19	20	20	20	21	19	18	19	21	21	34	26	29	31		
5	30	24	28	29	26	22	22	21	20	16	15	14	17	23	31	33	33	35	39	36	34	33	33	32		
6	29	26	27	31	34	33	31	30	28	28	29	31	32	33	32	28	25	25	27	25	28	33	41	39		
7	38	30	27	29	29	28	29	30	28	24	19	18	19	16	19	21	23	25	24	26	24	25	27	28		
8	23	20	19	20	22	22	21	20	19	17	17	18	24	26	26	25	26	27	26	20	19	17	16	8		
9	16	0	-3	2	4	2	4	8	11	7	7	5	5	11	14	13	11	13	10	7	7	10	10	9		
10	5	1	1	8	6	7	8	10	10	6	6	-2	4	11	12	7	5	8	5	-1	-5	-4	-1	0		
11	-6	-6	4	12	15	18	22	19	19	19	17	15	19	24	29	29	29	25	15	1	-1	5	12	14		
12	12	3	-3	-10	-12	-11	-11	-11	2	4	4	6	12	23	20	17	23	28	29	20	15	6	-7	2		
13	5	7	4	11	1	-1	-2	-4	-2	1	2	7	10	13	7	-4	-0	6	6	-8	-15	-19	-14	-7		
14	-7	-4	1	2	2	3	2	-0	2	-1	1	5	5	7	4	-2	-1	-0	-1	-1	-5	-5	-2	-1		
15	-1	-2	3	11	16	15	12	10	6	4	2	2	1	-0	-2	-4	-1	4	8	5	6	12	13	11		
16	6	3	3	8	15	15	13	12	13	12	10	5	3	7	5	-1	-5	-7	-3	-9	-8	-1	2	6		
17	9	7	12	16	14	16	14	11	9	8	8	4	1	-3	-7	-8	-9	-3	-2	-1	5	10	13	14		
18	14	13	18	24	25	22	18	17	16	13	8	2	3	9	12	5	3	1	-6	-8	-6	5	10	13		
19	11	13	16	18	20	21	19	18	18	16	11	7	4	4	5	1	0	3	7	10	10	10	12	17		
20	20	22	24	22	23	23	24	25	25	23	22	21	30	29	29	24	20	20	25	22	21	23	24	22		
21	20	21	26	31	34	33	31	37	36	36	35	30	27	25	21	15	15	18	15	17	18	13	11	7		
22	7	9	11	17	21	20	8	0	-0	3	4	3	1	-1	2	3	4	7	3	-2	-5	-6	-3	0		
23	4	7	13	17	18	17	16	16	17	13	13	9	6	3	1	-2	0	1	2	3	14	21	18	13		
24	17	22	24	26	24	19	16	12	10	11	13	16	16	17	17	15	12	9	1	-1	7	9	13	15		
25	15	15	13	8	5	5	3	4	8	8	8	7	4	1	1	1	7	12	16	17	20	21	20	21		
26	26	26	27	20	19	20	21	23	25	25	22	24	43	35	21	16	16	20	26	24	21	17	8	-15		
27	-45	-78	-84	-65	-78	-80	-82	-45	-60	-60	-57	-62	-65	-66	-66	-63	-60	-52	-50	-51	-40	-34	-30	-21		
28	-20	-18	-19	-17	-17	-16	-17	-17	-18	-21	-19	-17	-18	-20	-22	-21	-16	-20	-19	-18	-16	-19	-19	-12		
29	-7	-1	2	3	3	2	-1	-2	-3	-5	-5	-6	-7	-10	-9	-3	-1	-2	-3	-5	-4	-2	5	12		
30	13	11	14	16	18	17	13	13	17	13	12	8	2	-1	4	12	20	10	11	16	14	15	21	19		
31	15	13	16	10	5	5	4	2	2	2	-3	-13	-17	-20	-18	-12	-10	-5	2	-0	-0	-1	0	4		

AUGUST 1969

DAY	UNIT=GAMMAS																						G.M.T.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	11	19	20	18	14	10	8	10	8	6	0	-9	-12	-10	-5	-1	1	7	9	16	18	14	13	14
2	16	18	17	16	14	12	12	11	11	12	11	9	7	11	15	21	26	41	47	50	45	38	38	44
3	43	41	35	25	22	22	24	22	18	11	5	2	5	4	2	4	7	10	10	10	-2	-18	-30	-42
4	-37	-35	-29	-21	-17	-10	-9	-12	-10	-11	-12	-18	-15	-10	-6	-5	-5	1	7	1	-0	-0	2	5
5	10	11	10	3	-5	-7	-5	-4	-3	-5	-3	-4	-4	-6	-6	-2	0	-3	-3	0	1	-1	-0	3
6	7	8	2	0	0	0	1	1	3	3	2	-1	-1	3	6	8	12	18	21	25	19	16	17	19
7	21	26	34	28	19	12	12	11	10	17	18	22	19	20	21	21	23	30	33	25	11	-1	-5	-4
8	-3	-5	-1	4	8	7	7	5	5	2	-1	2	5	3	1	4	9	11	9	15	16	13	9	16
9	17	13	12	6	2	1	0	-0	-0	1	2	3	2	-3	-2	0	0	3	1	-2	-6	-7	-9	-9
10	2	10	9	2	-6	-9	-11	-11	-9	-1	-5	-10	-14	-16	-13	-10	-4	3	5	7	5	1	1	5
11	12	19	19	14	13	9	9	10	13	13	8	4	4	14	23	30	32	40	34	28	26	24	28	33
12	38	33	13	2	-8	-2	-4	-4	1	-0	-3	1	-1	-2	3	5	1	-7	-9	-7	-6	-7	-11	-7
13	6	9	8	4	-3	-8	-9	-5	1	3	-5	-8	-10	-9	-2	2	5	11	6	-1	-6	-15	-12	-5
14	-1	3	6	7	3	-1	-3	4	3	-3	-7	-11	-6	4	9	14	20	26	25	17	36	24	-4	2
15	10	17	19	16	12	8	7	1	5	4	4	2	6	8	14	13	17	21	35	30	24	20	12	7
16	11	14	20	19	17	14	13	14	13	11	10	10	9	9	9	8	12	21	25	23	15	9	8	13
17	17	12	1	-8	-16	-19	-16	-13	-11	-9	-5	-1	1	7	12	15	20	22	19	11	10	4	1	6
18	12	16	11	7	8	9	10	13	15	15	11	12	12	15	19	25	29	34	35	29	21	14	13	14
19	19	14	14	5	6	3	3	4	7	13	15	10	7	13	22	25	24	24	19	0	-17	-36	-35	-21
20	-10	-2	2	-4	-11	-14	-13	-2	-9	-14	-15	-14	-11	-1	6	12	17	19	19	17	13	9	8	11
21	5	6	1	-5	-1	-1	-6	2	7	5	4	1	-1	-2	0	-0	6	15	25	23	14	8	6	8
22	16	21	19	14	9	9	10	12	15	14	12	7	6	10	14	19	22	22	27	29	28	18	19	23
23	25	25	25	21	-5	-12	-3	0	2	3	8	3	1	6	8	8	10	15	23	23	15	4	4	4
24	0	-0	8	9	8	6	5	9	8	6	5	4	9	18	23	29	33	33	33	36	29	24	18	13
25	12	19	19	10	2	1	0	4	6	5	0	-6	-7	1	7	12	18	25	30	28	23	16	15	19
26	22	29	24	18	17	18	18	20	20	14	27	15	11	19	24	24	33	42	42	40	36	32	14	10
27	5	8	-24	-36	-30	-36	-30	-25	-28	-31	-35	-32	-23	-19	-17	-18	-17	-15	-14	-13	-14	-16	-15	-17
28	-16	-16	-19	-24	-24	-16	-21	-22	-19	-18	-17	-19	-16	-3	4	7	11	-4	9	2	3	-2	-4	-3
29	3	10	11	6	3	5	5	8	9	5	-0	-4	-3	-2	0	0	8	18	28	26	18	9	7	11
30	16	21	20	13	9	7	5	3	6	7	5	2	2	9	13	16	21	25	26	23	21	16	16	18
31	24	29	26	17	13	12	12	10	7	0	-1	-2	-7	-7	1	7	14	19	25	23	19	10	2	2

SEPTEMBER 1969

DAY	UNIT=GAMMAS																G.M.T.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	4	14	14	7	1	0	2	1	3	4	2	-1	-2	0	7	11	21	30	32	32	29	23	17	19
2	24	26	25	19	14	15	15	10	7	7	8	7	7	15	24	27	27	26	23	18	13	11	14	19
3	29	32	32	28	24	22	20	22	20	18	17	15	19	24	31	17	38	39	39	35	24	10	9	11
4	13	13	9	3	-2	1	3	6	9	13	14	12	12	16	20	19	22	24	20	14	3	-5	-5	2
5	10	15	17	17	16	19	21	19	16	15	17	18	21	11	-2	-9	-12	-6	-6	-23	-33	-42	-59	-64
6	-50	-27	-31	-26	-30	-36	-20	-24	-21	-19	-20	-10	-12	-9	-5	-5	-8	-8	-11	-16	-18	-26	-26	-13
7	-7	-7	-5	-6	-6	-6	-7	-10	-15	-19	-19	-10	-7	-7	-5	-6	-1	1	-13	-23	-31	-29	-32	-30
8	-27	-23	-21	-29	-45	-50	-52	-37	-40	-45	-42	-36	-28	-27	-31	-30	-26	-20	-16	-20	-29	-30	-24	-22
9	-19	-18	-14	-14	-13	-13	-10	-9	-9	-11	-11	-11	-9	-8	-6	-9	-11	-8	-9	-2	-8	-12	-14	-17
10	-8	-12	-11	-14	-13	-11	-6	-5	-5	-5	-7	-8	-9	-6	-0	2	3	10	6	5	2	-7	-2	5
11	2	-15	-22	-24	-22	-23	-22	-22	-24	-25	-21	-18	-16	-12	-3	1	4	2	-5	-15	-22	-17	-11	-5
12	-3	-4	-0	-1	-7	-1	1	-1	-1	-2	-3	-3	-5	-4	-4	-2	2	5	0	-7	-9	-9	-4	0
13	5	10	10	7	-0	1	4	6	5	7	4	5	9	14	15	15	13	13	16	15	13	9	15	19
14	20	18	14	11	9	8	10	10	8	7	8	6	7	11	11	20	26	30	28	14	-14	-38	-43	-52
15	-64	-71	-61	-47	-39	-39	-36	-29	-37	-43	-45	-49	-49	-38	-27	-23	-22	-24	-32	-34	-36	-40	-36	-35
16	-36	-30	-29	-22	-25	-25	-26	-26	-25	-24	-24	-26	-25	-18	-15	-8	-7	-10	-15	-21	-20	-17	-10	-6
17	-1	2	7	10	10	11	14	16	16	12	3	-9	-14	-6	7	22	21	22	18	-8	-4	-3	-5	-1
18	3	2	3	-0	-4	-7	-2	-2	-7	-6	-5	-4	1	2	-4	-2	4	-16	-21	-22	-23	-23	-22	-24
19	-18	-23	-28	-19	-11	-6	-3	-3	-4	-4	-6	-10	-12	-14	-15	-15	-13	-14	-22	-24	-20	-13	-4	-1
20	-1	-0	4	6	4	1	-1	-5	-0	-1	-6	-9	-15	-18	-20	-22	-18	-24	-24	-22	-17	-11	-6	-1
21	1	-0	-1	0	1	2	3	3	7	8	8	4	1	1	3	2	2	3	-5	-11	-12	-10	-5	-4
22	-4	1	3	2	1	3	7	9	9	9	9	7	4	5	6	8	8	5	-2	-10	-13	-6	1	7
23	18	17	9	12	12	13	15	18	19	22	24	24	22	22	23	20	16	14	4	-8	-26	-39	-29	-13
24	-3	3	5	5	1	4	0	-5	-3	-3	-3	-5	-5	-5	2	5	5	2	-4	-10	-14	-14	-7	-4
25	-2	-2	1	1	-7	-5	-3	2	0	2	3	0	-1	-3	-1	-6	-3	-6	-11	-14	-17	-19	-9	-6
26	-5	0	4	8	9	9	7	4	0	4	4	3	2	3	6	9	10	7	2	-1	1	4	8	10
27	12	12	14	15	15	14	13	13	14	13	15	15	17	13	11	13	15	12	5	4	-2	9	21	20
28	19	15	24	28	29	31	36	33	32	22	15	51	45	5	3	-2	-7	-19	-21	-25	-31	-44	-44	-41
29	-36	-31	-29	-21	-14	0	-7	-10	-5	11	-10	-16	-6	7	-17	-16	1	8	1	-27	-56	-48	-65	-104
30	-151	-148	-147	-113	-96	-91	-93	-94	-64	-72	-78	-71	-66	-76	-80	-73	-84	-93	-95	-90	-81	-67	-60	-54

OCTOBER 1969

DAY	UNIT=GAMMAS																G.M.T.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-56	-68	-66	-57	-53	-52	-44	-40	-44	-43	-37	-34	-31	-37	-40	-45	-50	-50	-56	-56	-59	-60	-53	-48
2	-42	-46	-55	-43	-39	-29	-35	-39	-38	-35	-24	-27	-23	-27	-42	-54	-55	-61	-58	-64	-63	-62	-61	-63
3	-61	-56	-49	-48	-46	-45	-41	-38	-36	-28	-26	-21	-20	-19	-25	-25	-32	-42	-51	-57	-53	-48	-44	-42
4	-43	-44	-40	-36	-30	-28	-28	-27	-24	-19	-15	-14	-10	-8	-8	-7	-10	-25	-38	-41	-38	-29	-26	-27
5	-28	-29	-23	-18	-17	-16	-16	-13	-11	-9	-8	-8	-9	-11	-14	-12	-11	-16	-27	-39	-34	-30	-19	-12
6	-13	-19	-23	-20	-24	-28	-27	-27	-21	-13	-4	-5	-12	-19	-19	-16	-12	-20	-29	-31	-33	-30	-19	-15
7	-18	-22	-29	-29	-23	-21	-22	-16	-14	-10	-9	-8	-8	-12	-14	-13	-12	-18	-23	-26	-21	-16	-12	-10
8	-10	-12	-10	-5	-5	-4	-4	-0	3	3	4	4	-2	-5	-7	-5	-4	-7	-14	-15	-10	-5	-2	-7
9	-9	-10	-9	-8	-7	-8	-8	-6	-4	-2	2	6	6	3	0	0	-2	7	3	9	4	-0	13	20
10	16	9	0	-7	-16	-23	-26	-14	-11	-16	-12	-11	-9	-11	-15	-15	-15	-20	-27	-42	-52	-46	-29	-26
11	-31	-36	-32	-25	-19	-23	-26	-28	-23	-17	-10	-10	-15	-24	-27	-27	-28	-32	-37	-37	-30	-22	-12	-6
12	-7	-17	-19	-13	-8	-13	-17	-10	-7	-10	-6	-2	-4	-9	-13	-9	-5	-16	-22	-25	-24	-16	-7	-5
13	-4	-6	-7	-5	-4	-5	-8	-3	-2	-1	-2	-1	-7	-11	-13	-12	-12	-17	-22	-26	-19	-10	-3	1
14	3	2	4	3	4	3	4	5	8	9	10	11	10	2	-4	-7	-7	-11	-18	-21	-18	-9	-2	-1
15	-4	-6	-5	-0	2	-0	-1	0	4	4	6	9	8	5	5	5	4	-0	-7	-11	-9	-1	3	4
16	2	0	1	5	6	4	8	14	17	18	21	20	16	9	4	1	-5	-7	-17	-26	-26	-26	-18	-17
17	-18	-19	-11	-5	-2	-4	-3	0	4	6	10	14	17	19	20	23	23	15	8	3	0	-4	-18	-29
18	-32	-30	-23	-17	-12	-11	-12	-12	-16	-14	-6	4	3	0	0	0	-4	-12	-16	-14	0	15	17	19
19	14	6	4	10	19	18	6	2	6	8	10	7	1	-10	-11	-8	-5	-15	-23	-22	-12	-3	3	3
20	1	-5	-6	-5	-4	-5	-5	-2	-1	3	6	10	11	8	5	4	2	1	-6	-6	-5	1	12	19
21	18	9	9	10	10	10	6	6	8	5	6	12	12	9	7	1	-0	-10	-7	-4	-4	0	1	4
22	3	3	2	0	-1	-3	-12	-9	-5	-2	5	12	11	10	10	8	3	-5	-7	-5	-2	-0	6	11
23	11	9	6	5	3	2	1	3	5	8	12	15	15	11	9	8	5	0	-7	-5	-4	-4	6	12
24	11	10	11	-4	-5	-4	-10	-15	-17	-14	-3	3	5	8	5	3	-0	-0	-2	-4	6	19	11	13
25	22	20	10	3	-1	-3	-3	-1	0	-1	3	7	11	10	6	5	6	4	-1	-4	1	1	12	17
26	18	13	14	14	14	8	8	6	-1	2	8	12	15	13	13	13	10	4	1	10	26	27	28	24
27	18	14	19	17	13	8	6	6	1	4	8	14	15	14	11	10	5	-4	-11	-6	-8	-9	0	-2
28	-1	-9	-13	-13	-10	-10	-10	-10	-8	-3	2	5	4	-1	-5	-7	-9	-13	-11	-11	-12	-14	-5	4
29	6	1	-2	1	5	2	-2	-1	1	3	7	11	10	7	6	5	5	2	2	-0	3	4	7	10
30	10	5	4	8	8	5	3	3	5	6	8	8	8	3	0	-1	-3	-6	-5	-0	5	8	16	22
31	25	22	15	11	9	0	-6	-9	-5	-8	-6	-4	-5	-7	-8	-15	-18	-17	-12	-9	-2	1	5	11

NOVEMBER 1969

DAY	UNIT=GAMMAS																G.M.T.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	8	-1	-4	-3	-2	-4	-4	-2	1	4	6	9	8	2	0	2	-2	-1	2	6	8	11	11	9
2	3	-6	-4	-1	2	-1	-4	-2	0	4	6	8	4	1	-3	-5	-13	-15	-15	-19	-11	-6	-0	-10
3	-18	-24	-16	-11	-17	-22	-28	-27	-20	-12	-10	-7	-7	-8	-9	-6	-5	-5	-6	-7	-12	-9	1	3
4	3	2	-4	-12	-12	-9	-11	-9	-6	-5	-3	-2	-4	-2	-1	-3	-5	-11	-19	-22	-33	-14	-5	-2
5	-6	-10	-6	-3	-3	-8	-7	-5	-5	1	4	10	9	3	-1	-5	-8	-4	0	4	10	17	22	28
6	24	19	16	15	14	10	7	10	13	14	15	13	9	4	-1	8	-6	-5	0	12	31	35	39	30
7	41	30	10	11	-2	-11	-16	-17	-15	-12	-8	-4	3	2	2	0	-1	3	-14	-16	-25	-32	-29	-19
8	-8	-2	0	1	4	-7	2	1	-1	1	-0	0	-5	-7	-8	-11	-0	-8	8	7	-16	-25	-17	-17
9	-17	-7	-8	-8	-22	-36	-42	-48	-45	-34	-30	-23	-27	-29	-32	-48	-46	-28	9	4	-7	-5	-1	-1
10	0	-5	-13	-16	-26	-28	-24	-38	-33	-32	-32	-26	21	-1	-14	-23	-22	-25	-29	-37	-40	-36	-22	-17
11	-10	-15	-14	-14	-20	-21	-21	-21	-10	-10	-13	-11	-12	-13	-17	-24	-21	-14	-8	-10	-9	-13	-3	-0
12	-6	-13	-8	-9	-12	-13	-15	-14	-14	-13	-12	-12	-15	-16	-17	-18	-21	-24	-18	-11	-11	-10	-11	-9
13	-2	-2	-2	-1	-1	-3	-5	-6	-6	-9	-9	-6	-6	-8	-9	-3	-14	-11	-9	-4	-4	-4	-4	1
14	6	3	-2	-3	-6	-7	-8	-9	-8	-5	-5	-4	-7	-11	-16	-19	-21	-21	-17	-12	-7	-3	-0	2
15	8	6	4	3	2	1	-1	1	1	2	1	0	-5	-9	-10	-11	-9	-5	-1	0	4	8	13	19
16	20	19	16	15	13	11	9	9	9	10	10	8	6	3	1	-0	1	5	13	16	15	14	12	16
17	20	21	19	16	18	15	13	12	12	12	12	8	4	-2	-7	-11	-6	4	9	13	11	11	13	18
18	20	19	16	14	11	14	10	7	7	8	9	7	4	5	4	2	-1	-0	8	16	16	17	19	21
19	19	17	15	12	11	7	3	4	6	8	10	9	6	7	2	-0	-2	-1	3	4	-23	-22	-1	-4
20	-2	-3	-4	-5	-4	-3	-4	-4	-1	-0	1	4	3	2	1	-3	-5	1	5	6	3	7	13	18
21	19	17	15	12	10	8	6	8	9	11	11	10	9	5	0	-7	-6	1	8	8	6	10	14	18
22	19	18	15	20	12	1	0	4	8	12	14	19	24	24	21	18	18	21	16	9	0	5	11	13
23	16	14	13	12	8	8	7	8	11	15	16	17	15	17	15	10	5	7	11	8	5	1	3	8
24	10	10	9	9	5	5	5	7	9	11	17	15	15	15	11	6	2	3	11	16	9	6	10	12
25	13	15	15	14	11	9	2	1	1	1	5	9	12	8	0	-1	-5	-1	1	7	9	9	3	-1
26	-7	-4	-17	-26	-24	-20	-15	-13	-10	-8	-4	0	3	1	1	10	8	11	5	5	6	1	3	7
27	8	11	9	4	-8	-12	-22	-21	-18	-18	-12	-17	-11	-13	-23	-24	-20	-17	-16	-22	-27	-25	-26	-29
28	-25	-22	-21	-21	-27	-20	-26	-21	-16	-11	-9	-6	-8	-11	-15	-11	-9	-4	4	1	-2	-10	-15	-6
29	-2	-7	-8	-8	-7	-12	-13	-13	-14	-11	-7	-3	-6	-6	-10	-14	-16	-19	-22	-17	-30	-26	-22	-30
30	-36	-32	-38	-34	-31	-29	-28	-25	-19	-18	-20	-20	-20	-19	-18	-21	-23	-17	-13	-15	-14	-16	-19	-18

DECEMBER 1969

DAY	UNIT=GAMMAS																G.M.T.							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-15	-12	-9	-10	-13	-12	-13	-11	-10	-9	-9	-8	-9	-13	-13	-13	-12	-14	-12	-9	-14	-21	-22	-17
2	-13	-6	-4	-5	-11	-12	-10	-10	-5	-4	-6	-7	-8	-9	-12	-11	-5	3	7	4	1	1	1	0
3	1	2	3	-1	-1	-0	2	3	6	8	9	7	6	2	0	-1	2	10	16	15	17	14	6	3
4	3	11	12	12	10	16	18	14	15	14	9	11	9	5	8	10	11	20	27	25	20	23	20	15
5	11	10	9	9	7	6	7	12	14	15	15	16	12	9	7	2	2	5	10	16	-7	-10	-10	-10
6	-15	-14	-24	-27	-30	-37	-32	-25	-21	-16	-12	-9	-9	-8	-3	-2	-1	7	14	14	3	2	1	2
7	1	3	2	-2	-4	-3	-4	-4	-3	2	3	2	1	2	2	5	5	8	14	17	17	14	8	5
8	3	4	4	4	1	-1	-1	1	2	6	7	8	7	5	5	6	10	18	23	24	24	19	11	2
9	1	2	8	21	12	16	15	12	11	16	16	17	13	13	14	9	8	18	22	23	22	14	4	4
10	6	6	7	5	2	3	3	4	5	7	9	9	8	4	2	6	7	12	17	21	12	-7	-26	-34
11	-34	-19	-10	-8	-7	-3	-9	2	-1	-1	-0	2	7	9	5	2	3	9	17	14	10	8	4	-1
12	-5	-0	1	-4	-5	-7	-8	-6	-4	0	2	3	4	2	-1	-1	-1	4	12	15	15	15	12	10
13	12	12	13	13	10	6	5	9	10	13	14	15	13	11	9	11	11	13	17	19	16	15	15	11
14	7	10	14	15	16	18	20	21	23	21	21	19	19	18	16	16	15	16	20	19	19	21	21	14
15	11	13	15	15	15	17	20	19	22	20	22	20	17	16	14	14	12	8	5	9	12	10	-0	-11
16	-14	-18	-6	-0	2	0	-4	-3	1	4	3	5	5	3	0	-10	-12	-11	-2	-4	-9	-4	-7	-8
17	-8	-8	1	4	2	2	5	7	8	7	4	5	7	8	13	15	10	6	7	12	8	8	5	-2
18	-7	-2	-0	3	6	9	10	12	12	14	13	13	14	18	25	30	30	29	27	23	20	19	14	7
19	3	6	9	9	8	10	10	12	14	14	14	18	17	15	16	13	20	24	28	33	30	32	31	26
20	23	24	26	24	21	21	20	21	23	26	27	29	30	33	31	27	23	20	19	20	21	27	27	25
21	19	15	12	12	14	15	19	20	22	21	19	18	19	20	22	24	29	30	27	26	27	29	25	19
22	21	20	23	25	23	21	15	7	6	12	14	17	18	28	37	35	39	37	34	35	40	40	35	27
23	20	20	20	20	15	11	8	5	4	10	7	4	3	1	-3	2	5	5	-2	-5	-6	-1	-7	-14
24	-14	-18	-11	-8	-5	-1	1	0	4	6	4	2	0	-4	-2	4	6	6	4	5	11	7	4	3
25	3	3	3	2	-1	1	-4	-9	-4	-3	-5	-5	-7	-9	-4	-5	-6	-5	-1	-0	3	6	4	-3
26	-2	2	4	1	-3	-2	-1	4	3	4	2	4	2	4	5	6	-0	4	12	13	12	9	9	4
27	-4	-12	-14	-10	-7	-3	-3	-5	-5	-4	0	1	-4	-5	-2	-4	-9	-12	-6	-0	1	2	-1	-3
28	-3	-0	2	10	11	12	4	4	6	7	6	2	-2	-3	-1	-2	-3	-2	7	12	17	17	11	7
29	3	4	6	8	9	9	6	8	10	11	9	4	4	4	9	6	-0	-0	4	9	13	13	9	6
30	3	4	5	6	9	9	9	10	9	8	8	6	7	6	10	9	6	9	13	14	16	13	12	9
31	6	12	15	15	19	21	19	16	15	13	11	12	9	10	11	13	11	11	15	21	22	19	16	12

DAILY MEANS OF EQUATORIAL DST FOR 1969

DAY	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
1	-18	-8	-19	-18	-22	-8	9	7	11	-49	3	-13
2	-8	-36	-23	-27	-13	2	5	23	17	-45	-4	-5
3	-1	-103	822	-39	-17	0	14	10	24	-40	-12	5
4	0	-39	-4	-25	-12	-4	21	-10	10	-26	-8	14
5	-5	-33	-1	-20	-7	9	27	-1	-1	-18	2	7
6	-5	-21	-9	-13	-10	12	30	8	-20	-20	14	-10
7	-1	-17	-16	-33	-5	6	25	18	-13	-17	-5	4
8	-17	-18	-23	-14	6	15	21	6	-31	-5	-5	8
9	-11	-11	-17	-22	-4	-6	8	1	-11	-0	-22	13
10	-8	-11	-8	-17	-2	-10	4	-3	-4	-18	-22	4
11	-3	-74	-21	-16	-1	8	15	19	-14	-24	-14	-0
12	-12	-58	-58	-1	8	-16	7	1	-3	-12	-13	2
13	-6	-38	-32	-27	-38	-16	0	-2	10	-8	-5	12
14	-11	-21	-19	-26	-45	-2	0	7	5	-1	-8	17
15	-14	-16	-36	-18	-101	-5	5	13	-40	1	1	13
16	-10	-15	-23	-17	-72	3	4	14	-20	0	10	-4
17	-22	-8	-41	-33	-48	-1	6	3	6	2	10	5
18	-19	-1	-27	-26	-30	1	10	17	-7	-7	11	14
19	-12	10	-7	-8	-21	12	11	6	-13	0	4	17
20	-12	1	-46	-5	-9	3	23	1	-9	1	1	25
21	-5	0	-32	0	-25	8	24	5	0	5	8	21
22	-3	6	-22	15	-12	12	4	16	3	1	13	25
23	5	7	-34	6	-8	18	10	9	9	5	10	5
24	-7	2	-168	9	-9	1	14	15	-2	1	10	0
25	-36	-0	-82	2	-10	4	10	11	-4	5	6	-2
26	-25	-2	-44	2	2	6	21	24	5	13	-4	4
27	-27	-12	-26	5	12	10	-58	-20	13	6	-15	-5
28	-19	-35	-13	-40	0	12	-18	-9	6	-7	-13	5
29	-9	0	-13	-35	4	21	-2	8	-20	4	-13	7
30	-5	0	-22	-44	2	21	13	13	-89	5	-23	9
31	-9	0	-8	0	-8	0	-1	11	0	-1	0	14
MEAN	-11	-20	-2	-16	-16	4	8	7	-6	-8	-3	7

ANNUAL MEAN

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